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ABSTRACT

According to John Friedmann, planning is meant to mediate knowledge and action, providing a conceptual and operational linkage between a certain body of knowledge and a certain set of activities in the policy-making domain. This linkage articulates the knowledge needs of action and informs knowledge by translating and processing pertinent insights gained from perusing available knowledge. The close relationship between knowledge and action in planning makes the planning knowledge base critically important. Whether or not educational planning is in crisis (like mainstream planning), it is linked to a particular knowledge base with its own epistemology and its own set of structural and institutional arrangements for producing and disseminating knowledge. This paper argues that key elements in the knowledge base are being profoundly challenged at the same time that educational planning is undergoing some major reconfigurations. These challenges derive from an erosion of the philosphical consensus underlying modern social research and from questions raised about the prevailing structural, economic, and political arrangements for knowledge production and dissemination. Also, dissatisfaction with the existing knowledge base is helping to articulate new and different knowledge needs and generate a new knowledge culture. After reviewing the prevailing philosophical premises guiding the conventional knowledge base for educatonal planning, the paper assesses challenges to the philosophical and institutional elements of this knowledge culture. The paper concludes by speculating on possible concerns for a new educational planning knowledge base. (140 references) (MLH)

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UNCERTAINTY AND POWER:

NEW PARADIGMS OF KNOWING AND THE KNOWLEDGE BASE OF EDUCATIONAL POLICY *

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"Vérité au-deça des Pyrénées, erreur au-delà"

(Pascal) *

Planning, in John Friedmann's apt phrase, is meant to "mediate knowledge and action" (1987, 4); it provides a conceptual and operational linkage between a certain body of knowledge and a certain set of activities in the domain of policy -- a linkage that articulates the knowledge needs of action and, in turn, informs action by translating and processing pertinent insights gained from the perusal of available knowledge. It is this close relationship between knowledge and action in the concept and practice of planning that makes the question of the knowledge base of planning so critically important. As one looks to the future of planning, it is impossible to avoid facing, at the same time, the future of the kind of knowledge on which planning relies. In his own assessment of the state of planning in the public sector, Friedmann not only reaches the conclusion "that mainstream planning is in crisis", but proceeds to identify "a crisis of knowing" as the first reason for this crisis in planning (1987, 311-312).

Whether or not educational planning is in crisis as well, it is as inextricably linked to a particular kind of knowledge base, which has informed and guided both our thinking about, and our practice of, educational planning over these past few decades. As all bodies of knowledge, this knowledge base has its own particular epistemology (or philosophy) for judging what does and does not constitute valid knowledge, and its own set of structural and institutional arrangements for the production and dissemination of knowledge. It is this combination of substantive and structural elements that suggests the notion of a "knowledge culture" (Sutton 1986), which shares with other "cultures" the importance of having a history of its own and of being tied to certain norma-

tive assumptions and tenets.

I am arguing in this paper that key elements in this knowledge base are being profoundly challenged at the same time, and for somewhat similar reasons, as educational planning (and planning more generally) is undergoing some major re-thinking. These challenges derive

(a) from an erosion of the philosophical consensus underlying modern social research, i.e., of the accepted conventions and rules for the validation of knowledge about social and educational reality; and

(b) from questions raised about the prevailing structural, economic, and political arrangements for the production and dissemination of knowledge.

An additional challenge arises out of the practice of educational planning where dissatisfaction with the existing knowledge base is leading to the articulation of new and different knowledge needs.

The contemporary challenges to the philosophical and structural orthodoxies in the knowledge base of educational planning, besides creating a good deal of confusion and apprehension for researchers, planners, and policy actors, also contain the seeds for generating a new knowledge culture that seeks to respond both to the challenges to the old knowledge order and to the changing needs of the practice of educational planning. This new knowledge culture recognizes, in the realm of philosophy, the fundamentally contingent nature of our knowledge about social and educational reality and, in institutional and organizational terms, the critical importance of the twin principles of autonomy and participation.

Before entering the argument itself, a brief definitional clarification may be in order. Where this paper speaks of knowledge, it means something different from "information", even though there is substantial overlap between the two:

It is hard to construe any sensible definition of "knowledge" that would not rely on, and incorporate, a significant amount of information. Nor is this distinction meant to discount the importance and utility of a number of valuable treatments of the problem of inadequate information in educational planning, including the results of the 1977 UNESCO symposium on "Information and Communication in Educational Policy and Planning" (Psacharopoulos 1980). This paper builds in some ways on the results of these and other earlier efforts, including the comprehensive and rich study of "knowledge networks" sponsored by the IIEP (Hudson and Davis 1980).

The point of the distinction between information and knowledge, however, is essentially that between description and analysis, or between an account of existing (or anticipated) conditions and an understanding of the relationships that help explain those conditions. Blurred as the distinction sometimes get, there remains an important difference between these two sets of activities -- "knowledge" and "information" -- in philosophical, methodological, and organizational terms. The inventory of 27 indispensable "informational bits" (Psacharopoulos 1980, 49) is handy, simple and, as far as it goes, useful; these "bits" provide valuable input into, but no substitute for, an understanding of the factors accounting for, say, different prospects and patterns of employment across different social, ethnic, and gender groups, or for difficulties in generating local resources for educational expansion. It is this kind and level of understanding that will make the difference between a largely technical and mechanical conception of planning, in which information is very much a commodity that "flows" in and out of the decision process, and a notion of planning that, while being fully and adequately informed, aims further at an analytical posture for producing understanding as a basis for

policy action.

As a point of departure, the first part of the paper reviews the prevailing philosophical premises that appear to have guided the conventional knowledge base for educational planning, and the nature of the structural and institutional arrangements through which this knowledge base has been developed and sustained. This review is then followed in a second part by an assessment of the kinds of challenges that have been and are being directed at both the philosophical and the institutional elements of this knowledge culture. Against the background of these challenges, the paper will conclude with some observations on what a new knowledge base for a new educational planning ought to be particularly concerned with.

1. THE PHILOSOPHICAL AND STRUCTURAL CHARACTERISTICS OF THE EXISTING KNOWLEDGE BASE

Educational policy, in general, and educational planning, in particular, have tended to rely on a knowledge base that is characterized by a number of more or less explicit premises about what does and does not constitute valid knowledge, and by certain structural arrangements within which knowledge is produced and disseminated. While not all of the characteristics discussed here apply to all kinds of knowledge-producing activities at all times, they seem to represent a reasonably accurate typology of the conventional knowledge base of educational policy and planning.

1.1 Criteria for the validity of knowledge

In the vast array of what, in one way or another, can be "known", one of the basic needs is for a set of rules and conventions that specify what kind of knowledge is and is not to be considered valid. These specifications, which are part of the task of epistemology, have undergone significant changes over the history of human knowledge -- from the knowledge claims of religious mystics to those of nuclear physicists. They have also tended to vary across different domains of knowledge, as between, for example, artistic and scientific knowledge. The specifications of rules of validity that have prevailed in the knowledge base of planning have had a rather particular complexion. This particularity, which will be described in more detail below, has had something to do both with what the nature of "planning" was perceived to be, and with the embeddedness of planning into the context of the bureaucratic-administrative organization of the modern state.

This thesis applies, by and large, to educational planning as well. Implicitly or, less often, explicitly, the nature of the task faced by educational planners has been seen as requiring a particular kind of "appropriate" knowledge and as excluding certain other, "inappropriate" kinds of knowledge. Given the patently structured and systematic nature of the planning process, it would have been hard to conceive, for example, that it might be appropriately served by a knowledge base made up strictly of episodic or anecdotal knowledge, or of the kind of knowledge that is typically represented by works of art or literature, or, for that matter, of the kind of "clinical" knowledge that physicians and psychiatrists acquire on a case-by-case basis. Similarly, as will be discussed further below, the prevailing use of quantitative approaches in educational planning would have seemed to preclude a knowledge base that was not, at least potentially, susceptible of quantification.

In the following, an attempt is made to sketch the major premises and criteria that appear to have guided the construction and identification of the kind of knowledge that has traditionally served to guide the action of planners in education as elsewhere. These criteria are derived or inferred from the very nature of planning as it has manifested itself over the past twenty or thirty years and/or from the more explicit postulates of planning specialists or institutions about what they would consider appropriate kinds of knowledge. Overall, the criteria which have served to specify what is and is not to be considered valid knowledge in the context of planning are especially closely tied to a particular kind of scientific rationality. This rationality has a special affinity to the positivist tradition in the social and behavioral sciences which was historically shaped by an attempt to emulate the epistemology of the natural ciences; as Talcott Parsons put it in his (somewhat one-

sided) discussion of Max Weber's work: "... there is not 'natural' or 'cultural' science; there is only science or non-science and all empirical knowledge is scientific in so far as it is valid" (1977, 61). For purposes of this discussion, I see the legacy of scientific rationality in the knowledge domain of educational policy and planning primarily, and with some simplification, in the key role that is being played by the criteria of objectivity, prediction, quantification, cumulation, and control.

1.1.1 Objectivity and certainty

The first of these criteria specifies that knowledge, in order to be congenial to the task of educational planning, must be "objective". Whatever else that somewhat elusive term implies, it certainly means that such knowledge had to avoid being "subjective." This implies a rather high degree of independence from the observer, or the producer of that knowledge, such that it represents "reality" in its own right, as it were, and that others would be able independently and quite reliably to verify the existence and the nature of that reality. For example, knowledge about the volume, composition, origin, and flexibility of resources (financial or otherwise) would need to be established in such a way that it is not affected by the analyst's position, preferences, or biases, but in a manner that allows the information to be handled as a generally accessible commodity that was not susceptible to "subjective" interpretation (Parsons 1977, 64). The notion of "data", with its literal and accepted meaning of that which is "given", has become the terminological centerpiece of this conception of knowledge: That which is given can rightfully claim, and is accorded, the status of an independent entity which the observer or analyst can discover, reveal, and describe, but not modify. Notwithstanding

the fact that the debate about "realism" in the philosophy of science is alive and well and far from resolved (see Miller 1987), most of our literature keeps at least implying that the knowledge on which we rely for purposes of policy and planning has to satisfy the criterion of being an objective reflection of reality (except for the inevitable and regrettable imperfections inherent in the process of observation and analysis).

A variant of this criterion of objectivity is the norm of certainty. Not absolute certainty, of course, but enough of it to make such knowledge the basis for shaping, through planning, the future of people's and societies' lives and for allocating considerable, finite, and valued resources in some ways rather than others. There is thus, ideally speaking, little room for uncertainty, ambiguity, or equivocation in the knowledge base on which planning must rely: It would be considered frivolous to base the development of an entire system of vocational training or re-training, for example, on the mere conjecture of a future boom in information technology production in a given country and its resultant manpower needs. In this perspective, indeterminacy and uncertainty have to be seen as fatal flaws in a body of knowledge that is meant to inform realistic and sound planning; if in a given context full certainty cannot be achieved, at the very least the possible margins of error need to be known.

1.1.2 Prediction

While the twin postulates of "objectivity" and "certainty" are widely shared across the world of policy-related knowledge, planning in particular calls for an additional property of knowledge, namely, that it should make possible reasonably dependable prediction or at least anticipation. The fact

that planning, by definition, has to do with developments in the future calls for a knowledge base that must allow for, and facilitate, inferences from present to future conditions. That quality, however specifically defined or expressed, is by no means characteristic of all human knowledge -- not even, as more recent insights into the indeterminacies of physical processes show, of all scientific knowledge (Gleick 1987). For planning to be successful or even meaningful, however, its underlying knowledge base must have the logical stability to permit reasonably confident "if - then" statements, and to permit extrapolation from the status quo to some future condition if not with certainty, then at least within measurable error ranges. Changes in units of measurement or units of analysis over time will obviously ruin this kind of extrapolation -- an occurence common enough as a result of involving different inside or outside agencies in the production of knowledge. Other possible distortions of predictability are less obvious. If our understanding of demography -- to create a somewhat bizarre illustration -- were such that it did not include the element of aging, it is easy to see how that kind of "knowledge" -- however refined, complete, and otherwise reliable it might be -- would wreak havoc on any realistic planning effort. Or, to be slightly less bizarre and a good deal closer to the reality of planning at least in some settings: If our understanding of demography had conceptually not advanced to the point where it recognized the impact of migration (or lacked the analytical tools to treat migration as anything but a random occurrence), it is easy to see how, on that kind of a knowledge base, the effort to anticipate student flows, to assess social demand for education, and to project the corresponding educational needs would deteriorate to an exercise in futility (Psacharopoulos 1980, 23-25).

1.1.3 Quantification

It seems so obvious that it hardly bears stating, but it is well worth a moment's consideration that the nature of the planning process as we know it imposes a rather strict mandate of quantifiability upon the kind of knowledge that planning is capable of using. This mandate does not necessarily prescribe a very sophisticated type of quantification, since most of the data on which planning, in education at least, relies are relatively straightforward, though by no means unproblematic. And yet, the very premise that knowledge, in order to be "usable" for planning purpose, does at least have to be susceptible to quantification draws a rather narrow boundary around the kinds of knowledge that would qualify under this criterion, and tends to exclude quite an array of possible and otherwise perfectly legitimate observations about social and educational reality. Most knowledge about historical processes and influences, for example, is hard if not impossible to quantify; key social conditions which have a direct bearing on education, such as the role of women, the cultural and social significance of different age levels, or patterns of verbal and non-verbal communication reveal only one aspect (and often not the most important one) to quantifiable categories of description and analysis. I am not (as yet) arguing the importance for the future of educational systems of these and other elements of reality that are similarly hard to quantify; however, these examples do demonstrate how the criterion of quantifiability has limited the realm of knowledge that is considered appropriate from the point of view of a concept of planning that, for better or worse, has established quantification as one of its key parameters of operation.

1.1.4 Cumulation

Less explicit than some of the other points discussed here, but still an important legacy of the tradition of scientific thought to the relationship between knowledge and planning is the idea that knowledge is to be cumulative. This refers to the notion that there is to be an identifiable and typically linear progression over time in both the volume of what we know and the degree of certainty with which we know it, and that -- as the metaphor has it -- one generation of knowledge producers stands on the shoulders of preceding generations. That kind of cumulation would need, of course, a considerable degree of continuity and stability in both the substantive agendas and the instrumentalities of knowledge production. For one generation of knowledge producers to be able to communicate with both its predecessors and its successors requires a commonality of "language" that goes much beyond terminology and jargon, and consists of a rather basic consensus on what does and does not constitute knowledge worth adding to the ongoing process of cumulation. This notion, which reflects the time-honored model of scientific progress, has undergone some significant modifications as a result of Thomas Kuhn's work on "scientific revolutions" and on the discontinuities introduced into scientific work by paradigm changes (1962; see Holton 1978, 233-234; Foucault 1978, xiii-xv). These insights notwithstanding, we continue to encounter in the knowledge domains of educational policy and planning an implicit adherence to the ideal of cumulativeness where the persistence of certain methodological persuasions or theoretical "schools of thought" are concerned; inferences from sample data or the notion of "human capital" are cases in point of knowledge traditions where concern for cumulativeness seems to have conferred special longevity.

1.1.5 Manipulation and control

The final ingredient in this retrospective on the "ideal" knowledge base for the pursuits of educational planning is its manipulability. This observation is not recorded with a necessarily pejorative connotation, but it recognizes the widespread perception that, for knowledge to be "useful" for such tasks as planning, it has to be subject to control by the user such that its contents can be configured and re-configured as needed for specific purposes. In a simple example, it must be possible from a planner's point of view to manipulate the cut-off points in data on the age distribution of a population in such a way as to make it correspond to alternative structures of an educational system (6-2-4, 4-4-3, etc.). Similarly, knowledge about the distributive characteristics of an educational system (by region, gender, class, ethnicity, etc.) is rarely used in its entirety, but is typically segmented (and sometimes re-composed) according to the interests and needs of a given user and to the priorities of a given policy. The same is true, with instructive variations, where knowledge about the determinants of educational achievement, about the effectiveness of alternative forms of educational management, or about the impact of different modes and formulae of educational financing is concerned: Not only is the process of knowledge <u>production</u> determined by the investigator (which could hardly be otherwise, although its implications need to be pursued a bit further later on), but also the ways in which available knowledge is <u>used</u> are in large measure controlled by the user. This control is exercised not only through the selection of partial units of knowledge from a larger available universe, but also through the manipulation of the definitional and categorical infrastructure of the knowledge base (see the examples Ashis Nandy provides to illustrate what he calls "the imperialism of categories"; 1988, 177). How we attribute meanings of greater or lesser equity to certain distributive charac-

teristics in a sample of students, graduates, or schools, whether we consider attrition from the school system a matter of the system ("push-out") or of the individuals involved ("drop-out"), whether we focus on student flows in terms of progression from one level to the next rather than in terms of the roles (school and non-school) into which graduates from one level get placed -- all of these and many more can serve as examples for the ways in which we manipulate, for what may well be perfectly legitimate reasons, the knowledge base that is "at our disposal", and superimpose on it our own definitions of meaning to suit our explanatory and/or policy purposes.

1.2 The structural characteristics of knowledge production

As the preceding section has shown, we are dealing with a particular kind of knowledge when we talk about the knowledge base of educational planning -- particular in terms of the kinds of criteria used to distinguish between "appropriate" and "inappropriate" knowledge. Not everything within the wide universe of what is potentially "knowable" is considered suitable for satisfying the knowledge needs of educational planning; indeed, there are some rather tight limitations as to what kind of knowledge qualifies. These limitations stem, in large part, from the close relationship between the bureaucratic rationality of planning itself and the scientific rationality of a "matching" knowledge system.

I am arguing now that a similar set of specifications operates with regard to the institutional and structural arrangements under which this kind of knowledge is being produced, and that there is something distinct and particular about the kinds of organizational settings in which the knowledge base for educational planning is being prepared and sustained. Here, as in the

previous section, some generalizations will have to be made across a range of different circumstances, but there seem to be good grounds for identifying some central tendencies in the institutionalized capacity for knowledge production that Bosse has called "the administrative social sciences" (1978), and that Jinadu has described in his analysis of "the institutionalization of the social sciences in Africa" (1985, 14-18).

On the whole, and important exceptions notwithstanding, the kind of knowledge production that is of interest here tends not to be found on the research agenda of universities. This observation does not preclude many instances where university units or individual university researchers become involved in research that contributes to the knowledge base of planning, through contracts, outside projects, consultation, etc.; where that occurs, however, the institutional and political groundrules for such research tend to be set outside the university and to differ more or less markedly from the mainstream research in which universities normally engage in their own right (cf. Bosse, op. cit.). More typically, the kind of research and knowledge that is of interest here is generated by a broad spectrum of international (inter-governmental or non-governmental), statal, parastatal, or private institutions that operate outside of the regular university system even though they may draw on university resources to a considerable extent. Within this institutional web, however, the state tends to play a rather central and often dominant role -- especially, it seems, in many of the societies at the periphery of the world system (Cardoso and Faletto 1979; Jinadu 1985, 17-18). Not only does the state exercise control over the process of knowledge production in a variety of ways (by setting criteria, establishing required qualifications for knowledge producers, providing incentives and disincentives, as well as outright regimen-

tation), but it also serves as the major source of material and other support.

Considering that planning in the realm of policy is almost by definition a state function, this is hardly surprising. This relationship between knowledge and the state, however, has some other aspects that are important to keep in mind. These include the kind of symbiotic relationship between knowledge and power that I have described elsewhere as a relationship of "reciprocal legitimation" (Weiler 1984). This kind of symbiosis, which applies generally to the relationship between the world of power and the world of knowledge, seems to be particularly pronounced where "administrative social science" and the knowledge base of planning are concerned, and where Bosse finds an "institutionalized coexistence of technical-instrumental and legitimating-ideological functions of science" (1978, 30; 192; cf. Jinadu 1985 and Rucht's point about the "dual deficit" -- in rationality and legitimacy -- of the modern state, 1982, 253). Because of the prominent role of the state in the production of knowledge in general, and in generating the knowledge base for policy and planning, in particular, the structural arrangements for the production of this knowledge have certain characteristics which relate directly to the nature of the modern state. Among these characteristics, the following discussion gives special attention to the elements of centralization, hierarchy, conservatism, and the transnationalization of knowledge production.

1.2.1 Centralization

The system of knowledge production that is primarily responsible for creating the knowledge base for educational planning tends to be, first of all, rather centralized. This has something to do with the perceived need for the standardization and homogeneity of the knowledge base; inasmuch as the planning

process itself tends to be highly centralized [3], it would be ill served by a knowledge base that would include, for example, four or five different ways of accounting for educational expenditures, or that defines "educational outcomes" differently in different parts of the country. Beyond assuring standardization, however, centralization also tends to have something to do with the need for exercising control over both the production and the utilization of knowledge (Weiler 1988; cf. Rondinelli et al. 1984, 1-2).

Centralization in knowledge production does not necessarily manifest itself in physically centralized institutions, such as the research or research and planning department of a central ministry of education, even though that is not uncommon. The critical operational factor here is the centralized monitoring of the process, reflected in the setting of rules, criteria, and priorities for research and knowledge production; such monitoring can and does take place through a wide range of institutional mechanisms, including contractual and consulting agreements with widely "decentralized" agencies. To the extent that such monitoring is effective, however, it will result, substantively speaking, in a highly centralized system of knowledge production.

1.2.2 Hierarchy

By very much the same token, and through some of the same mechanisms of centralized monitoring and control, the system of knowledge production for educational planning tends to be rather hierarchical. Whatever the specific organizational arrangements may be, this system tends to emulate for the domain of knowledge rather closely the kinds of hierarchies of command that prevail in the domain of planning itself. Research agendas tend to be set authoritatively in both substantive and methodological terms; the political or administrative

authority in charge of planning -- a national ministry, planning board, etc. -- defines more or less explicitly the kind of knowledge that will be needed, and successful participation in the process of producing that knowledge will depend on how closely these priorities are being followed. A Department of Education in a university may conduct a rather significant and, in policy terms, quite relevant program of educational research through, for example, its students' Master's theses; by not taking its cues from what the Ministry of Education considers pertinent knowledge, however, that program has little chance of seeing its findings and results become part of the knowledge base of educational planning. This kind of hierarchical agenda-setting by the political/administrative authority that is involved in planning further compounds the hierarchical tendencies that seem to be already inherent, as Gyarmati has shown, in the structure of knowledge-producing and other professions (1975).

1.2.3 Conservatism

I would argue, thirdly, that the institutional arrangements for producing the kind of knowledge base on which educational planning relies and, in particular, the role of the state in these arrangements, tend to encourage rather conservative approaches to the production of knowledge. This, again, is said without a necessarily pejorative connotation, but recognizes the constraints that result from operating within administrative frameworks that tend, with varying degrees of fervor, towards maintaining the operational and procedural status quo. In any bureaucracy, and occasional exceptions notwithstanding, the cost of experimentation and exploration is rather high, and leads to a general tendency to stay with the tried and trusted rather than the new and unknown. This tendency manifests itself in the operational quality of

administrative procedures, but also in identifying the kind of knowledge that is to underpin those procedures. It is safer to go with what has been used and found useful before, rather than incur the risk and the cost of possible failure that is inherent in all innovations. It is thus that "administrative social science" leans towards theoretical and methodological orthodoxies, and tends to emulate the low-risk persuasion that is typically part of administrative and bureaucratic subcultures.

1.2.4 Transnationalization

My final observation in this section has to do with the structural arrangements for the production of planning-related and education-related knowledge from an international perspective. At a very general level, knowledge of most any kind is almost by definition international; national boundaries have traditionally been quite permeable where the production, exchange, and dissemination of knowledge is concerned. There is, however, a further and different aspect to the international nature of knowledge production, which has to do with the existing division of labor in the contemporary world system. As world systems theorists and dependency theorists have by now amply demonstrated (Cardoso and Faletto 1979; Wallerstein 1979; Chilcote and Johnson 1983), the contemporary world is characterized by a rather peculiar division of labor between countries of the "center" and the "periphery" of the international system. This is so in the realm of economic production, and it is in many ways similar in the realm of knowledge production as well. It reflects the terms and constraints under which, in the international division of labor, the state in dependent peripheral societies operates. As I (Weiler 1984) and others (Fuenzalida 1984; Mattelart 1979; 1983; Masrui 1975; Altbach 1977; 1987) have shown,

the global pattern in knowledge production, particularly in what could loosely be called social research, is one in which both the substantive/intellectual and the institutional/organizational properties of knowledge production are largely dominated by the transnationalized "knowledge culture" of the West and, more specifically, of the social science establishment in North America and Western Europe. The result, in Kothari's stark observation, is "a homogenizing monoculture of the mind" (1987, 284).

This "dependency" manifests itself on the one hand in highly unequal access to resources for research: financial resources, libraries, equipment, training, etc. More importantly, it is reflected in the adherence to epistemological premises, rules for the validation of knowledge, methodological precepts, and procedural conventions that are distinctly Western in origin. In his analysis of the social sciences in contemporary Africa, Jinadu speaks of "a reproduction of dominant expatriate social sciences", which has its roots in "the asymmetrical character of the international social science community as a structure of productive relations" (1985, 19; cf. Ake 1979; Bosse 1978, 206-207). Behind this asymmetry, however, lies yet another level of transnationalization, at which, as Escobar argues, the center produces "discourses ... about the Third World as a means of effecting domination over it" (1984-85, 377; cf. 383-390 and the similar argument in Said, 1979). A key issue in this discourse is the notion of development and underdevelopment in the Third World as constructed by the developed countries; we will have to return to this issue later on.

This transnationalization in the realm of the content and theoretical orientation of knowledge is institutionally reflected in a network of organizational arrangements in the fields of professional publishing, financial support, professional interaction, and scholarly training that tends to

reinforce the existing pattern of dominance in the substantive/intellectual realm (Berman 1983; Arnove 1980; Altbach 1975; 1987).

The more specific domain of knowledge that forms the base of educational planning shares in this overall condition of dependency, but with an exacerbating element. The kind of research on the results of which educational planning tends to rely -- in the fields of demography, labor market analysis, cost and financial analysis, etc. -- is very much embedded in the kind of transnational system of knowledge production which I have briefly sketched above. In addition, however, educational planning itself, as has been pointed out repeatedly (Weiler 1980; Bosse 1978, 207-220), has shown a particular propensity for adhering to an "international model" of operation. This adherence is based on the premise that, basically, educational planning is a process whose logical and conceptual properties transcend national particularities and can claim, with all due modifications around the margin, reasonably universal validity. It is not difficult to see how such a claim further strengthens the tendency for the underlying knowledge base to retain its transnational homogeneity. This homogeneity is one of the most striking observations as one peruses the worldwide literature on educational planning and on the kinds of knowledge needs that it suggests implicitly or explicitly. The theoretical models, research questions and methodological procedures involved betray a remarkable degree of uniformity across a widely varying range of educational and political settings and circumstances; there is a firmly established "canon" of approaches to educational planning ("manpower planning", "social demand", etc.), and very little deviation from the precepts that have become associated with each approach (Davis 1988; Weiler 1985; Psacharopoulos and Woodhall 1985). It is interesting to note that, in a recent study of the state of manpower forecast-

ing in eleven different countries, Youdi and Hinchliffe found signs of increasing divergence in forecasting strategies in the industrialized countries, but concluded that most of the developing countries continued to follow the practices of manpower forecasting for educational planning that had been developed in the 1960s (1985, 258). As far as the periphery of the world system is concerned, the philosophical premises described in a previous section of this paper seem indeed to hold sway over the domain of educational planning, with much less variation than one would expect in a world that is otherwise such a complex and disparate entity.

The reasons for both the emergence and the persistence of this homogeneity, I would argue, have a great deal to do with the structural arrangements for sustaining the notion of educational planning and for providing the knowledge base on which it relies. These arrangements are characterized by (a) the important role played in the history of educational planning by international organizations, (b) the linkage between educational planning and international assistance in education, and (c) the transnational quality of contemporary educational or education-related research.

It would go beyond the limits of this paper to go into much detail on any of these three assertions. Nor does this seem to be necessary as none of the three, at least as a matter of fact (as distinct from interpretation), is the subject of any major contestation. Virtually from the outset of independent educational policy in Third World countries, international organizations such as UNESCO and the World Bank have played a critical role in the development of national capacities for educational planning, and have explicitly or implicitly maintained the universal applicability of certain models and approaches to educational planning. Indeed, from the outset the International Institute for

Educational Planning (IIEP) was both a product and an instrument of this coalition for the international propagation of educational planning -- a coalition in which, in addition to UNESCO and the World Bank and for somewhat similar reasons, the government of France and the Ford Foundation became more or less active partners.

It is in part due to the same circumstances that educational planning developed such a close relationship with international assistance in education (Weiler 1984b). While it is too simple to argue that departments of educational planning in developing countries typically ove their existence to the insistence of the World Bank or another donor that such departments be established as a precondition for educational aid, it is not altogether fictitious either. Whatever the original circumstances, there has remained a particularly close affinity at the national level between educational planning and foreign assistance, to the extent where, in many countries, it is the planning unit in the Ministry of Education that typically deals with external grants and loans -- a situation which, as Damiba (1980) and others have shown, is not entirely free of problems and paradox. This affinity between planning and aid has effectively been another element supporting the international rather than national orientation of educational planning; it has, by the same token, given the knowledge needs of the donor agencies a particularly heavy weight in defining the appropriate knowledge base for educational planning (Hassan 1987).

The third element that has contributed to the worldwide homogeneity in the knowledge base of educational planning has to do more generally with the state of the international system of knowledge production, especially in those fields of knowledge on which educational planning tends to rely (Garcia Guadilla 1987). Here, transnational homogeneity and a general adherence to the epis-

temological traditions of the West are buttressed by a network of institutional arrangements that range from research training (differential prestige of research training in graduate programs of the center vs. those in the periphery) to scholarly publishing (the most prestigious journals and publishing houses being located in the center countries) to research funding (the vast majority of funds coming from sources in the Center, and the criteria for allocation largely corresponding to the criteria formulated in the Center) and to the control over major international research enterprises such as the International Association for the Study of Educational Achievement (IEA) -- the "prevailing metaphor" of which, in Alan Purves' instructive account, is "that it sees the world as an educational laboratory" (1987, 27).

The overall picture, in conclusion, is one of striking homogeneity in the way in which knowledge is produced, disseminated, and utilized in the context of educational policy and planning. This is not in and of itself good or bad, although it stands in stark contrast to the striking variation in educational and social conditions across the countries of today's world. Given this variation, it would not have been unreasonable to expect the knowledge base of educational planning to convey a more differentiated and variegated image than it actually does.

2. CHALLENGES TO THE ESTABLISHED ORDER OF KNOWLEDGE PRODUCTION

The philosophical and institutional status quo that has been described in the preceding section of this paper is increasingly being challenged on a variety of grounds, and questions are being raised with mounting insistence both about the prevailing rules of knowledge validation and about the prevailing structural and institutional arrangements for the production, dissemination, and utilization of knowledge. Again, these challenges are by no means unique to that subset of knowledge on which educational planning relies, but extend more broadly to social inquiry in general and to what we have earlier referred to as the "administrative social sciences". They reflect what Kothari has called "the deepening sense of crisis in the modern knowledge system" (1987, 283), echoing similar sentiments from observers as different as Friedmann (1987, 312) and Foucault (1978, x). Their more fundamental nature does not make these challenges any less weighty for the specific realm of educational planning; they carry with them not only a major threat to both the premises and the manifestations of the established knowledge order, but also the nucleus of new conceptions of knowledge and knowledge production.

The challenges with which this paper deals have essentially three different, but interrelated sources: (a) The erosion of the philosophical consensus about what does and does not constitute valid knowledge about social and educational reality; (b) the emergence of serious doubts about the adequacy of the prevailing structural and institutional arrangements for the production and dissemination of knowledge; and (c) a changing set of criteria and expectations on the part of the practitioners of educational planning regarding the kind of knowledge base that they feel they need. I will review the nature of the

challenges that derive from these three sources in turn, and will try to show in the third and concluding part of this paper how they may begin to lead to a new conception of the knowledge base of educational planning.

2.1 The erosion of the philosophical consensus on knowledge

In the history of human conceptions of knowledge, the second half of the twentieth century is likely to become known as the age of an eroding consensus in the philosophy of knowledge and the emergence of what Paul Roth calls "a pluralist view of rational inquiry" (1987, 5). As Habermas describes it, the philosophical orthodoxies ("those of Wittgenstein, Popper and Parsons no less than those of Heidegger, Sartre, and Lévi-Strauss" 1985, 133) have lost ground while previously "deviant" approaches (hermeneutics, ethno-methodology, critical theory, and various kinds of poststructuralism) have advanced. The net result is not only a "shattered consensus regarding the canons of rationality" (Roth 1987, 2), but also a "new openness" or a "new complexity" ("die neue Unübersichtlichkeit"), where now "everywhere one deals in more or less everything" (Habermas 1985, 133) [4].

But it is not all anarchy and random deconstruction; Habermas sees a number of major and parallel developments that stand out in this "new complexity", including (a) the penetration of historical and ethnological perspectives into disciplines with a pronounced positivist tradition and a particular stake in generalization (such as sociology), and (b) a critique of rationality or, more precisely, of a kind of rationality which, by limiting itself to a purely "cognitivist-instrumental" notion, has become incapable of interacting with the realms of the "moral-practical" and the "aesthetic-expressive" (1985, 134-137; cf. Roth's diagnostic of the Rationalitätsstreit in the philosophy of the

social sciences, 1987). Ashis Nandy speaks along similar lines of the "mechanomorphic" bias in Western rationality, which he sees as closely related to "the masculinity principle in the Judeo-Christian cosmology" (1978-79, 373). As this latter linkage has become more widely understood, it has made feminist theories of knowledge an increasingly important element in the current debate (e.g., Harding 1986; Farganis 1986; Mohanty 1984).

The process that has led to this "new complexity" in determining what is and is not "appropriate" knowledge spans the last several decades and has involved not only Europe and North America, but increasingly scholars and critics in the Third World. An important benchmark in this process has been the now classical "positivism dispute" in post-War German sociology (Adorno 1976), and its path is marked by such programmatic titles as "the coming crisis of Western sociology" (Gouldner 1970), "the fallacy of social science research" (Gonzalez Casanova 1981), "social science as imperialism" (Ake 1979), "the social construction of reality" (Berger and Luckmann 1967), "the archeology of knowledge" (Foucault 1969), "knowledge and human interest" (Habermas 1978), "from outside the imperium" (Nandy 1981), "imperialism and sociological theories of development" (Sine 1975) -- to name but a few of the more conspicuous contributions to this debate. Hübner traces the major phases of the philosophical debate from Wittgenstein's logical positivism through Popper's critical rationalism and Lakatos' critical falsificationism to the "methodological anarchy" in Feyerabend's work (1985, 413). But the debate is not just among philosophers of knowledge. Dallmayr and McCarthy suggest that the current "crisis of understanding" is also a "crisis of modernity" (1977, 10-11), and the intensely social and, indeed, political context of the issue of knowledge and its validation becomes forcefully articulated in the work of the authors

cited above, notably in connection with such issues as the relationship between knowledge and interest (Habermas 1978; Mittelstraß 1975, 126ff.; Nastansky 1979, 77ff).

This is not the place to pursue a dissertation on the contemporary philosophy and sociology of knowledge, but many of the observations and questions which have emerged from this debate are directly pertinent to our discussion of the knowledge base of educational policy and planning in the age of "post-positivistic thought" (Phillips 1983). In order to demonstrate this, let me return to what I have said previously about the criteria used in building and validating the conventional knowledge base of educational planning (see section 1.1 above), and show how these criteria are affected by the kinds of tendencies that have so profoundly transformed our thinking about knowledge and social reality.

2.1.1 The limits of objectivity

An important part of the contemporary transition in the philosophy of social science has been that we have learned to consider the time-honored criterion of "objectivity" in the study of social reality with a good dose of skepticism -- going back to some of Max Weber's early doubts (1904/1977), and reflecting the more contemporary and education-related doubts about the possibility of scientific objectivity in social inquiry expressed by Kinyanjui (1980, 108). One may or may not share Roth's summary judgment that, in this phase of the "post-positivist vacuum", "the account of objectivity and explanation developed by the logical positivists is to be rejected as philosophically passé" (1987, 2). Even if one doesn't, however, it has become unavoidable to pause for reflection on how far the notion of a "unified science", of a basic

epistemological commonality between the natural and social sciences, may have limited and obstructed our ability adequately to understand social reality. This reflection stands to gain a good deal of insight from the extensive and rich debate on the relationship between "explanation" and "understanding" in social inquiry (Apel 1984; Winch 1958; Dallmayr and McCarthy 1977).

As part of this reflection, it is well to realize that the construct of a social reality that is independent of the observer, and hence susceptible of description and analysis "in itself" and without reference to whoever does the describing and analyzing, has demonstrated its severe limitations; it has made way for the recognition of a more complex process of knowing in which both the identity of the observer and the structures of meaning that prevail among the observed social actors play a much more important role (Berger and Luckmann 1967; Friedmann 1987, 312). Our knowledge of the reality we study and seek to explain reflects not only what we see but also who we are -- our perspectives, biases, priorities, and values -- and cannot claim an independent and autonomous existence of its own: "what one 'observes' is itself a matter of interpretation" (Apel 1984, xii). While this is, as we now know, true in the natural sciences to a greater extent than conventionally assumed, it is even more patently true in the study of social reality, where not only the very choice of what we decide to study, but also our conceptual, theoretical, and interpretive frame of reference is very much a function of what we as observers and analysts consider "important", "relevant", or otherwise significant. That, however, is in turn a function of the kinds of cultural, social, and economic factors that have shaped our respective identities as investigators (Schöfthaler and Goldschmidt 1985).

Anybody who takes a closer look at the world of research dealing with

educational phenomena could compile a lengthy list of examples. Looking, as Sara Lawrence Lightfoot (1983) does, holistically and in depth at the "character and culture" of a single school produces a very different kind of knowledge about schools than what comes out of studying a nation-wide sample of over 1,000 classrooms (Goodlad 1984) or out of the micro-sociological analysis of organizational configurations in the work of Barr and Dreeben (1983); "shadowing" students on a daily basis through extended periods of their school experience (Eisner 1985) reveals different aspects of the learning process (and its difficulties) from the statistical analysis of the correlates of achievement test scores (Heyneman and Loxley 1983); reconstructing from a myriad of observations over time the complex web of school-community relations (as in Spindler et al. 1973) tells us different things about resource mobilization than what we learn from structured interviews with teachers and community leaders (Ntuah 1985); and the role of gender as a source of disparity in educational opportunity reveals itself differently in an intensive study of classroom social interaction (Cohen 1986) than from analyzing data on student achievement (Lockheed 1985) or on student flows over time. In each case, the different approach and vantage point of the analyst(s) make for distinctly different findings and insights. While these findings may well be complementary (they are not necessarily), they illustrate both the range of legitimate perspectives in analyzing the same social and educational phenomenon and the precariousness of any claim to "objectivity."

We need to go one step further and acknowledge that it is not just the personal idiosyncrasies of the observer that intervene in the study of social reality, but that these differences of perspective have something to do with the observer's own social and cultural position and origin (Berger and Luckmann

1967, 19-46, 116). Just as cultural background affects, as Gay and Cole (1967) have shown some time ago, things as elementary as the conception of mathematical entities, cultural and social background are salient factors in determining the perspective one brings to the task of knowing and understanding social reality. It is therefore not at all trivial (or merely a matter of tactics or appearances) whether the problems of an educational system in a given country are studied by a team of foreign experts or by researchers who have grown up in that country (Hassan 1987), just as it makes a difference whether the problems faced by women in an educational system are studied by men or women (Spender 1982; Staudt 1985). The frameworks one brings to the analysis and interpretation of social reality are neither unalterably given nor determined by universalistic criteria. "The debate on choice of frameworks is not a matter of appealing to some higher standards of rationality", concludes Roth his study of "meaning and method in the social sciences", "it is a choice of how one wants to live one's life" (1987, 244-245).

2.1.2 The limits of prediction

By very much the same token, the loss of secure dependence on the tenets of scientific rationality has undermined our belief in the predictive capabilities of social research; as the premise of the "unity of method" between the natural sciences and the social sciences has become questionable, it has become problematic to think of "explanations of behavior which allow predictions concerning future behavior" (Roth 1987, 3) -- be it the behavior of institutions, groups, or individuals. Our most elaborate models of voting, consumption behavior, or warfare have proven to provide little protection against surprises, serendipity, unexpected outcomes, and, indeed, banality, and it is

likely that this is not due to faulty data, but to some more basic limitations in our ability to plot the future behavior of entities that are by nature even more unpredictable than atoms, molecules and cells: "...the central concepts which belong to our understanding of social life are incompatible with concepts central to the activity of scientific prediction. When we speak of the possibility of scientific prediction of social developments ..., we literally do not understand what we are saying" (Winch 1958, 94). If this is true, it has important implications for planning in general and for educational planning in particular, where we have come to rely rather uncritically on our ability to forecast not only patterns in demographic developments, but also, among many other things, in communities', families', and individuals' decisions about educational, vocational, and financial choices. While past experience and knowledge about patterns in previous decisions continue to contain helpful clues as to the range and thrust of what might happen in the future, our somewhat exaggerated beliefs in the predictive power of theories about social reality face less sanguine prospects (Klees 1986). Where the connection between prediction and planning is concerned, it may be more prudent to face up to the challenges of planning under conditions of uncertainty than to put excessive faith in the predictive powers of our knowledge base [3].

2.1.3 The limits of quantification

Valid knowledge about social and educational reality comes in all shapes and forms, and is produced with varying degrees of emphasis on quantitative measurement and numerical manipulation. The kind of knowledge base on which educational planning has traditionally relied, however, has typically had a distinct bias in favor of quantification -- not surprisingly, considering the

intellectual history and logical properties of planning as we know it. A great deal of perfectly relevant and appropriate knowledge will continue to be needed and available in quantified or quantifiable form for purposes of planning. Even under the best of circumstances, however, there are important conditions and properties of a given social or educational situation that are simply not susceptible to quantified measurement and/or analysis or, even where they are, suffer serious distortions when reduced to their quantifiable aspects (Janich 1979). Let me give a few examples. The discrimination of groups of people, on the basis of gender, ethnic affiliation, religion or other characteristics, can certainly be measured in quantitative terms, using Gini indices or similar statistics. Very little is thereby said, however, about either the origins or the degree of entrenchment of these patterns of inequity, or about their effects on the attitudes and outlook of those that are being discriminated against; those aspects of discrimination tend to reveal themselves much more fully and comprehensively through the medium of in-depth case studies of individual life histories or community and classroom interactions; while those studies do sometimes employ numerical indicators, their evidentiary quality does not consist of, or rely on, the statistical manipulation of quantitative data. In revieving the contribution of economics to the knowledge base of educational policy and planning, Klees comes to the sobering conclusion that the kind of quantitative research that is typical of causal modeling in economics "does not at all add to what we already agree on as a result of casual qualitative observation ... or the examination of gross correlations" (1986, 601).

Both in describing reality and in constructing arguments, alternatives and complements to quantitative measurement and statistical manipulation are

available and increasingly used: Narratives and visual/pictorial images (including film) serve as instructively different and often richer forms of representing reality (Spindler and Spindler 1987); the time-honored instrumentarium of ethnographic research has provided increasing evidence of its utility in helping us understand educational institutions and processes in complex social conditions (Maclure 1988), and has gained added cogency through the interpretive approaches of ethnohermeneutics (Bosse 1979) and the analysis of action as "text" (Ricoeur 1971; cf. Hekman 1986, 139-155). The kind of argument that has been made above for the issue of discrimination and disparity could in similar form be made with regard to such issues as the identification of culturally and socially conditioned learning impediments, the motivation of teachers, the role of language in instruction, the cultural and social dynamics of attrition in schools, the conditions for mobilizing alternative resources for education, etc. It is obvious how, in foregoing the seeming tightness and cogency of statistical evidence in favor of a fuller and more comprehensive understanding of a more limited circumstance, the issue of quantification enters directly into the broader debate on generalizability vs. contextualization.

2.1.4 Generality and singularity

For the fourth element in this argument, I am going back to Habermas' point about the entrance of historical and ethnological perspectives into those disciplines who had traditionally put special emphasis on their ability to produce theoretical generalizations. This refers to more than just the shifting currencies of methodological persuasions, but reflects a much more profound challenge to yet another aspect of the traditions of a "unified science": the

debate about the relative importance of generality and singularity in the creation of knowledge and about the priority to be given to the formulation and progressive verification of general "laws" or law-like statements about social reality. This debate appears under many labels: the "special" vs. the "general"; "theory" vs. "everyday life"; "nomothetic" vs. "ideographic"; "abstraction" vs. "contextualization"; "continuity" vs. "discontinuity"; "breadth" vs. "depth"; etc. (Apel 1984; Winch 1958; Schutz 1967; Schöfthaler and Goldschmidt 1984). The issue centers more concretely on what is more "important" in generating knowledge about a given field of social activity, such as education:

- To produce generalized statements about determinants of learning outcomes across a large number of cases, or to capture the full texture of how learning takes place in a particular setting?
- To identify national or world-wide patterns in the financial returns to investments in education, or to reconstruct and understand the economic calculus that drives individual or group decisions about how much to invest in schooling and how?
- To abstract from a wide variety of institutional settings to arrive at a general theory of organizational behavior, or to understand how a specific organization's tasks interact with its environment and the social identity of its members to produce a particular "institutional subculture"?
- To develop and refine models of population growth and movement on a national or international scale, or to understand the cultural, social, and economic factors that affect people's decisions in matters of reproduction, health, resource allocation, and migration?

Of course, one could (and does) answer each of these questions with "all of the above", and point out (correctly) the complementarity of the different bodies

of knowledge that each of the options would help create. The real world of knowledge production, however, is a world of choices, finite resources, and competing priorities, and these choices and priorities are driven by profound differences of view on what constitutes the most appropriate knowledge and should thus be high on the agenda of those who are engaged in either the production of knowledge or in supporting it and publishing its results. It is this agenda that is undergoing major changes as a result of the shift in emphasis from a primacy of theoretical generalization and conceptual abstraction to a mounting preoccupation with understanding the specific conditions and dynamics of a given situation within its particular context; Nandy's argument about the "embeddedness" of technosystems is a case in point (1978-79, 384-385). As a result, we are witnessing in all of the social science disciplines as well as in educational research a changing pattern of research strategies; in-depth case studies, historical analyses, ethnographic studies, process, content, and critical incident analyses, and interpretive studies of both literary and social evidence are increasingly competing with the time-honored approaches of hypothesis-testing in the context of sampling strategies that permit generalization to a theoretically defined universe with identifiable sampling errors.

This gradual transformation in the modal type of analyzing social reality has some important implications for another one of the conventional elements in the knowledge base of educational planning: its cumulative nature. In a "unified science", progress was marked by a very special kind of incremental growth in which statements about reality progressed or gained in terms of both their veracity (the degree to which they were not falsified by successive exposures to new realities) and the scope of their applicability (i.e., their

being generalized to wider and wider ranges of situations). It is clear from what was said earlier about the eroding consensus on the nature of scientific rationality that this model of a linear cumulation of more and more secure knowledge has become problematic; the growing emphasis on the distinctiveness of a given situation will produce a knowledge base that is likely to be more discontinuous, contradictory, and contingent. The insights derived from more attention to the "rich texture" of a given setting are not as easily and parsimoniously integrated and cumulated across different observations and settings as are the findings from a successive series of systematic experiments or a consistent set of numerical data; there is a price to be paid in parsimony and elegance for the insights derived from more "contextualized" or "holistic" research. This is not to deny that knowledge does accumulate out of these new modes of research and inquiry (Schwemmer 1975); in fact, I am arguing that, while this different kind of knowledge cumulation is in some ways more cumbersome and less "efficient", it will in the end benefit our understanding of social reality more than the often false sense of security that we used to derive from the exercise of progressive generalization.

2.1.5 Limits of control

Finally, I had observed in the first section of this paper that another important ingredient in the knowledge base of educational planning was its manipulability, i.e., its being subject to the control of the user, which is exercised through such means as selection, reconfiguration, and interpretation. I am not sure whether this circumstance is as profoundly affected by the epistemological transformations and challenges of our time as some of the other issues, except perhaps in the following sense. One element in the change of

perspectives on knowledge, especially in the realm of social inquiry, is a greater consciousness of the role of the 'subjects' of research (Buck-Morss 1987). This greater awareness has to do, in a more immediate sense, with increasing concerns over protecting individuals and their rights from intrusion by an increasingly information-hungry research community and administrative bureaucracy (US National Commission 1978; Maloney 1984) [4]. In a broader sense, however, there is a growing consciousness among researchers of the need to accord the 'subjects' of research more of a voice and a role in the research process itself (Gianotten and de Wit 1982; International Forum 1981; Sülberg 1988). This 'democratization' of the process of knowledge production through more participatory forms of research would lead to some curtailment in the degree of autonomy that both the producers and the users of knowledge enjoy, and could be particularly significant in a field like education where it is quite conceivable that, once given the opportunity, teachers, parents, community members, and students may well have something to say about both the nature and the direction of the research process and the ways in which its results are being disseminated and used. This mandate for a greater involvement of research subjects in the control over the research process goes beyond the domain of the 'protection of human subjects'. It is intimately connected to the question of the legitimacy of the knowledge that is being created. In a particularly penetrating analysis of this issue ('Beyond African Famines: Whose Knowledge Matters?'), Gran takes a close look at the link between knowledge generation and power, and proceeds to demonstrate the critical importance of participatory research as 'the only way to generate knowledge that would have sufficient local legitimacy to be the basis for sustainable development action' (1986, 294; cf. Gran 1983).

2.2 Challenging the structures of knowledge production

The erosion of the epistemological consensus in social research in the second half of this century represents, as I have tried to show, an important challenge to some of our cherished and time-honored premises about the knowledge base of educational planning. But this is not the only challenge; in addition, and in some ways related to this first challenge, there is an increasing preoccupation with, and debate over, the institutional, organizational, and political arrangements under which knowledge is being produced, disseminated, and utilized. This second challenge has two components of rather different weight and complexity.

The first, with which I will deal only briefly, is the challenge that results from the changing technology of knowledge production and dissemination, particularly in the wake of the microelectronic advances of the past twenty years and of the availability and affordability of highly capable microcomputer devices. This is a development that is well known and well documented (Carnoy and Loop 1986; Colletta and Yip 1988; Grant Lewis 1988), but its full potential for the tasks of producing and making available knowledge for purposes of policy and planning is as yet rather imperfectly realized. The field of educational policy and planning is no exception in this regard. A good deal of progress has been made in recent years in the utilization of microcomputers for the management of educational systems, not only for purposes of data storage, retrieval, and manipulation, but also for the modelling and projection of alternative policy scenarios in education (Colletta and Yip 1988); however, there is still considerable room for improvement in the dissemination of these capabilities beyond the industrialized world and beyond a few isolated World

Bank or USAID project sites in the Third World, and in their utilization for training purposes. A special challenge lies in the utilization of the virtually untapped communications capabilities associated with microcomputer technology (through electronic information transfer, local area networks, etc.) for the improvement of communication within and between existing policy and planning systems. It would be an interesting task to rewrite Roger Pritchard's proposal (1980) for an "international information network in education" in the light of electronic data communications and networking capabilities now available or becoming available; it would be a substantially different proposal.

I would argue, however, that the obstacles to making better and more widespread use of these capabilities for wider and more open communication are and will be not merely technical or financial; on the one hand, the capacity of microcomputers for effective information storage and access tends to enhance the influence of central policy and planning authorities; on the other hand, however, the increasing availability and affordability of very capable computer equipment, and especially the access and communication potential of microcomputer-based networks can present a significant threat to existing patterns of influence and control, and can lead to considerable shifts in the role of different levels in institutional and bureaucratic hierarchies. This issue, however, already goes beyond the realm of the technology of knowledge production and the management of knowledge, and reaches into the problems with which the remainder of this section is concerned.

These problems represent the second challenge; they result not from changing technological conditions, but from challenges to the structures of knowledge production and to the normative and political premises on which they are based. I have described the principal characteristics of the prevailing

institutional order earlier in this paper (section 1.2): its close affinity with the state, its centralized and hierarchical nature, its essentially conservative orientation, and its transnational quality. It is these characteristics that have become the target of growing controversy and opposition.

2.2.1 The problem of hierarchy

Perhaps the central thrust in this entire debate, and the core around which some of the other critical tendencies have emerged, is directed against the profoundly hierarchical quality of the existing order of knowledge production, and against the structural consolidation of "knowledge authority" in specific roles (the professor, institute director, academy member, "expert", etc.) or in certain institutional entities (universities, academies, research institutes, "think tanks", etc.). This kind of insurgence found its by now classical expression in the student movement in Western Europe, North America, and Japan in the late 1960s. One of the targets of the movement was the monopolistic connotation of the professorial "chair" (Ordinarius, Catedratico, etc.) in which was traditionally invested not only administrative and instructional leadership, but also the very definition of the field of knowledge over which he (very rarely she) presided. The impact of this protest movement on the realities of the world of knowledge production has varied greatly from one country to another, as has the longevity of such changes as it did bring about. In a global sense, however, it has come to represent an emergent and continuing skepticism of institutionalized authority of knowledge, and of the kinds of categorical differentiation that distinguish experts from laypersons, teachers from students, the producers from the users of knowledge, etc., and that makes knowledge generation so much of a "dialogue of elites" (Gran 1986, 276).

This process has been accompanied by the recognition of the enormously consequential nature of expertise and knowledge in more and more areas of public life, and the resulting concern of the public over exercising at least some control over both the production and utilization of that knowledge. Nowhere has this trend been more dramatically evident than in the field of nuclear research (of both the peaceful and the not so peaceful kind), where the obvious implications of knowledge production and knowledge use for the survival of both humankind and its life space have mobilized popular activism for greater control around the world (Nelkin and Pollak 1981; Kitschelt 1980; Novotny 1977). Slightly less dramatic, but no less controversial have been the debates about monitoring advances in knowledge in such fields as biogenetics, pharmakology, or artificial intelligence. The convergence of these kinds of apprehension with the erosion of traditional authority roles in the world of knowledge, together with a more general desire for greater participation in the management of social futures, has resulted in at least the beginnings of a "legitimacy crisis" for the established hierarchical order in knowledge production (Becker 1986; Nelkin 1977; Rucht 1982; Gran 1986). Against this wider background, it is not surprising to find increasingly arguments for a broader distribution of research roles in the world of education, for seeing teachers and administrators as perfectly appropriate producers of relevant and valid knowledge about educational conditions and processes, for a general demystification of expertise, and for more broadly based participation in the production of knowledge (Herrera 1981; Fals-Borda 1981; Escobar 1984-85; Rahnema 1988b).

2.2.2 Centralization and decentralization in knowledge production

A closely related issue is that of centralization and decentralization in the world of knowledge. As generalizability and homogeneity are no longer considered undisputed virtues in knowledge about social phenomena, and as the value of recognizing the particular properties and conditions of a given situation becomes more readily accepted, one of the stronger arguments in favor of rather centralized systems of knowledge production is bound to lose its compelling strength. Regional variation and the particular historical, cultural, economic, and social conditions of a given region or community are being increasingly recognized as important ingredients in understanding and anticipating educational needs, aspirations, prospects, and problems. As this happens, centralized national research efforts, with their often limited ability or willingness to become immersed in local particularities, are not likely to qualify forever as the ideal arrangement for the production of the kind of knowledge on which realistic policy and planning can be based.

Changes in this regard are not likely to be dramatic and swift, however; the track record of achieving and sustaining genuine decentralization in administrative arrangements is mixed at best; occasional accounts of success (Bray 1984; Lauglo and McLean 1985) contrast with ample evidence of the resilience of centralized administrative arrangements (in education as elsewhere) and of the difficulty of making decentralization really work (Himmelstrand 1981; Baumert and Goldschmidt 1980; Rucht 1982, 257; Weiler 1988). If this literature is any indication, we should not expect centralized systems for either planning or knowledge production to yield easily to the demands for greater diversification and for more autonomy on the part of subordinate and more peripheral entities in the institutional order. The specter of methodological chaos, loss of standards, and intellectual anarchy will promptly and

forcefully be invoked to argue against any significant changes.

2.2.3 Conservative and innovative dynamics

Against the background of what has earlier been said about the "new pluralism" in our conceptions of what constitutes legitimate knowledge, it may be more difficult to retain the essentially conservative orientation of existing institutional arrangements for knowledge production. As a wide range of research strategies (ethnomethodology, hermeneutic-interpretive analysis, historical case studies, etc.) are overcoming their traditional marginality in the world of social and educational research, the preeminence of the experimental/quasi-experimental paradigm and its associated hypothesis-testing rationales and inferential methodologies should be increasingly difficult to maintain. The new openness of which Habermas spoke (1985) is redefining the rules of the game for the competition among different ways of knowing, and is dismantling the special birthright of some over others (Phillips 1981; Lenk 1986; Roth 1987; Feyerabend 1978; Friedmann 1987). Looking over the past decades at doctoral dissertations at leading faculties of education provides instructive evidence in this regard: While dissertations using "unconventional" (Hudson and Davis 1980) approaches to the study of educational issues (historical, case study, interpretive, ethnographic, etc.) were a negligible minority twenty years ago, they now represent in some departments and institutions the majority of doctoral theses.

2.2.4 Challenging the "homogenizing monoculture" of the transnational knowledge system

Perhaps the most significant and consequential challenge of all, however,

is the one that is directed against the hegemony of certain conceptions of knowledge which has been characteristic of the transnational system of knowledge production that I have described above and elsewhere (Weiler 1984). From a variety of directions and persuasions, the powerful hold of a Western-based knowledge system over the societies at the world's periphery is being increasingly challenged; Foucault speaks of "the movement by which, at the end of the colonial era, people began to ask the West what rights its culture, its science, its social organization and finally its rationality itself would have to laying claim to a universal validity" (1978, xii). As a reaction against the dominant and dominating discourses of the West, Escobar and others see a variety of "counterdiscourses" emerge in the countries of the Third World (1984-85, 390-392; cf. Bosse on "Gegenforschungen": 1978, 8 and passim) [7]. Overcoming the "imperialism of categories" will, as Nandy demonstrates for the study of religious violence, open up a new and better understanding of complex social reality (1988). What is needed in overcoming the "homogenizing monoculture of the mind", says Kothari, is "the reaffirmation of a moral universe that respects the plurality of perspectives and paths to truth" (1987, 284) -- a vision shared in Brenkman's call to "relativize and reinterpret the Western tradition, which has staked its claim to universality" (1987, 230).

These "centrifugal" tendencies in the transnational knowledge system manifest themselves first and foremost in the claim to different and multiple paradigmatic premises and theoretical positions. A case in point is the lively debate about the notion of development that has been going on for the better part of this past decade, and in which scholars like Kothari (1974; 1987), Komenan (1977), Nandy 1981a; 1981b), Alatas (1976), Kurien (1980), Hettne (1978; 1985), Frank (1975), Rahnema (1988a; 1988b), Escobar (1984-85), Gran

(1983; 1986) and many others have quite successfully challenged the conceptual monopoly of conventional Western models of thinking about development. Jinadu, another contributor to this debate, emphasizes the linkage between the prevailing conception of development and the state of the social sciences in the periphery; he speaks of "a view of development as incremental change in technological skills and efficiency and the consequent instrumentalist view of the social sciences that it encourages, (which) has tended to encourage the neglect of critical normative issues in development and in development theories" (1985, 19; cf. Bosse 1978, 191, 198).

This substantive "counterdiscourse" has been accompanied by a variety of institutional developments -- from the establishment of research institutions like the Centre for the Study of Developing Societies in Delhi or Pablo Latapi's work in rural Mexico and others (see Rahnema 1988b, 362-364) to professional organizations on a regional basis (such as CODESRIA, the African Association of Political Science, or the Inter-African Council of Philosophy) and increasingly successful ventures in scholarly publishing originating in the periphery (including journals such as Alternatives and Educación, Empleo y Desarollo Económico and publishers like Tanzania Publishing Co. and the already venerable Présence Africaine). Many of these institutional arrangements benefit from external support provided by international organizations (the UN University [UNU; cf. Mushakoji 1987], the International Social Science Council/-UNESCO, UNITAR, etc.) and from collaboration with some of the more progressive Western agencies such as the Swedish Agency for Research Cooperation with Developing Countries (SAREC) (SAREC 1987), the International Development Research Centre (IDRC) (IDRC 1986) in Canada, or the coalition between the German Foundation for International Development (DSE) and the "Kommission

Bildungsforschung mit der Dritten Welt" of the (West) German Society for Educational Research (see Wulf and Schöfthaler 1985); while these support arrangements certainly have the potential of creating new dependencies, there are indications that this risk has been thus far largely contained. However, it remains an open question whether these fledgling initiatives will manage to compete successfully with what, on the other side, is a powerful new wave of Western-based transnational initiatives in the field of knowledge production and dissemination, represented by such formidable institutions as the World Bank (see Purves 1987, 24) and the Educational Testing Service (ETS) and multinational publishing interests like Oxford University Press, Pergamon Press, and others.

2.3 Changing knowledge needs of educational planning

There is yet another direction from which the conventional wisdom about the knowledge base of educational planning is being challenged, and that is the practice of educational planning itself. As that practice has, however slowly and imperceptibly, changed over the past two decades or so (Eide 1983; Weiler 1980), it has generated the need for new and different kinds of knowledge that were not conventionally associated with, or utilized by, educational planning. Three examples will suffice to illustrate the point: As educational planning in many countries has, largely for reasons of political priorities and popular demand, moved beyond a mode of largely linear expansion and to the projection of different distributive scenarios, it has developed a need for a more differentiated and disaggregated data base and for at least some rudimentary insights into structural obstacles to achieving greater equity across regional, gender, ethnic, and class cleavages. I have my doubts as to how well and how

widely this knowledge need has as yet been satisfied, but there is no question about the need having assumed a good deal of salience in the minds of many of the practitioners of educational planning (e.g., Bray 1984, 87 and passim; Carron and Ta Ngoc 1981).

The second example is directly related to the widespread resource crisis in the educational policy of many Third World countries, and the resulting need to either plan for "steady state" conditions or for the mobilization of additional or alternative resources (Levin 1987). In either case, the conventional knowledge base is inadequate: "Steady state" planning requires a better analysis of cost patterns than has traditionally been available to educational planners, while planning for the mobilization of resources requires a much better understanding of the possible sources and nature of such resources, and of the economic, cultural, and political factors that constrain or facilitate access to them.

A third example has to do with an area that has attracted a good deal of rhetoric, but not too much concrete attention: The improvement of the managerial infrastructure of educational systems (World Bank 1988, 81-89; African Development Bank 1985, 19-21). To the extent that educational planning, as is increasingly the case in a number of countries, is charged also with anticipating and providing for the managerial and administrative needs of expanding, changing, or contracting educational systems, a new and complex body of knowledge about organizational processes and institutional cultures becomes critically important.

In a more general sense, educational planning is now finally about to recognize fully what, at least to some extent, had always been true, namely, that planning education means dealing with a "moving target" and with rather

high and basically unavoidable degrees of uncertainty. These uncertainties result not only from imperfections in our knowledge about, and understanding of, the present and future conditions of the educational system, but also from unforeseen and largely unforeseeable changes in the economic, financial, political conditions under which educational systems operate. Those changes are not always as dramatic as what educational planners in Nicaragua, Bangladesh, Chad or Ethiopia had and have to face as a result of the intervention of natural disaster or external aggression, but they are non-trivial even in more "ordinary" circumstances. The extent to which both resource flows and manpower needs are affected by widely fluctuating world market conditions, the kind of migration resulting from drought and similar calamities, or the vagaries in the amount, nature, and terms of foreign assistance all not only introduce a high degree of uncertainty and indeterminacy into the planning process, but also are largely beyond the forecasting capabilities of even the most sophisticated educational planning model.

There is, of course, no knowledge base that can turn these kinds of uncertainties into certainties, and create clarity out of profoundly ambiguous circumstances. But there are ways in which a better understanding both of the sources of these uncertainties and of their scope and range can be generated. Knowledge about likely margins of variation in resource flows, manpower needs, and demographic changes provides an important first step, and a basis for going further toward the informed construction of alternative scenarios. What is important in these scenarios is not only the "if-then" linkage between certain assumptions (e.g., about demographic patterns) and the implications for enrollment, capacities, etc., but also an understanding and specification of the grounds on which the assumptions are being made. The practice of planning

under conditions of uncertainty requires a knowledge base that itself is prepared to shed the pretensions of certainty, and to adopt a more contingent conception of its own role.

3. PLANNING AND KNOWING: THE POLITICS OF UNCERTAINTY

The previous sections have described what amounts to a major transformation in contemporary conceptions of knowledge about social and educational reality, and to a continuing challenge to some of the major premises for the definition and the institutionalization of the knowledge base for educational policy and planning. I have tried to show that this shift is of a rather fundamental nature in that it affects some of the most basic understandings of what does and does not constitute valid knowledge, and of how it should most appropriately be generated. What is equally important is the fact that this transformation is not the idiosyncratic product of a particular group or "school", or of any particular country or region of the world; as our very cursory review of the literature has already shown, we are witnessing a development that is truly world-wide, even though it manifests itself, understandably enough, differently in different parts of the world, reflecting the cultural frameworks and the intellectual and social experience of scholars in societies as diverse as India, France, Nigeria, the United States, or Brazil. All of this rich and at times confusing diversity notwithstanding, however, there is an overall convergence of themes and agendas that brings together the likes of Jürgen Habermas and Ashis Nandy, of Michel Foucault and Arturo Escobar, of Peter Berger and Majid Rahnema, or of Claude Ake and John Brenkman in a profound questioning of some of the very premises on which our analysis and understanding of social reality has tended to be predicated.

For those who, as planners, are engaged in, and committed to, mediating knowledge and action in important domains of public life, this challenge to our conventional conceptions of knowledge is ample cause for bewilderment and

reflection. Educational planning, once again, is no exception, and has no choice but to face the challenge that is presented by these changing parameters of its own knowledge base. As in all dilemmas, there are shortcuts; faced with the precariousness of its knowledge base, it may be tempting for educational planning to try to do without it altogether, to renege on the knowledge/action mediation role, and to just muddle through. There are probably quite a few instances where this is already the case, and where educational planners will not be greatly disturbed by the message conveyed in the earlier part of this paper, for the simple reason that their approach to planning always had a rather tenuous relationship with knowledge to begin with. Those, however, who are more seriously concerned with the basis on which their effort to plan a society's and its educational system's future rests will want to reflect more seriously on the implications that the current "crisis in knowing" or the "new complexity" in the world of knowledge has for their task. This reflection needs to be joined by those who, as producers of knowledge (regardless of whether they call themselves planners, researchers, or otherwise) will contribute to the further development, transformation, and sustenance of whatever knowledge base educational policy and planning will rely on in the future.

This final section of the paper will not preempt that process, but will, against the background of what has been said before, point out a few directions which this reflection may usefully pursue. There is no easy and quick way to reap the benefits of this kind of exercise; if we are to do this right, we are in for a difficult and extended search, during which the day-to-day tasks of planning cannot simply be suspended, but will have to go on as best as possible. But we really don't have any option but to embark on this arduous road. Dealing with the future of something as precious and crucial as education does

not permit easy solutions or false certainties.

3.1 The chance of the "new openness"

In a very concrete sense, there should be something liberating about the new openness and the new pluralism that has emerged around the issue of knowledge validation. To be sure, orthodoxies provide a sense of security, and they have done that after a fashion where the conventional knowledge base of educational planning was concerned. But they also tend to have a stifling effect, and we have seen evidence of this as well. The new acceptability of a much wider range of rules for validating knowledge, of epistemological positions and methodological approaches, should be able to free up creative energies in the pursuit and the creation of a new knowledge base that is much more open to the explanatory and interpretive power of different approaches. Thus, far from seeking new orthodoxies, there is a strong case for maximizing and for seeking to expand the range of access to the complex reality that educational development represents, and for systematically exploring both the complementarities and the contradictions that this diverse "marketplace of ideas" (Klees 1986, 605) represents.

3.2 Unlearning the old knowledge culture of planning

It will be difficult, however, simply to withdraw to a position of a "new comprehensiveness" -- letting "a thousand flowers bloom", as it were --, and to escape the need for setting priorities and for making choices where the creation of the future knowledge base of educational planning is concerned. This process will, first of all, require a certain amount of "unlearning" and of detachment from the overly rigid adherence to principles of scientific

rationality and of the ideals of a "unified science". Given the dominant role which such criteria as generalizability, prediction, universality, quantification, etc. have played in the history of planning-related knowledge, it will require a major effort to establish the relativity of these criteria and the adequacy of alternative criteria for the validation of knoveldge, such as depth of situational understanding, contextual integrity, legitimacy, or cultural specificity. Planning in general, and educational planning in particular, is likely to have a particularly hard time in this unlearning process because of the close ties between some of the universalistic premises of many planning models (not to mention their embeddedness in structures that are governed by principles of bureaucratic rationality) and the universalistic knowledge claims of the scientific tradition in social inquiry. What Sinsheimer says about our "addiction to technology" (1978) and Friedmann's point about the "escape route" of "salvation by technology" (1987, 313) is pertinent in this respect, as is Nandy's appeal to the "recessive elements in the Western orientation to technology" (or "the other tradition of the West", 1978-79, 375-377); the belief in technical solutions to what are essentially non-technical problems has been an important ingredient in the "culture of planning", and is likely to be a major obstacle on the way to a more comprehensive or encompassing knovledge base.

3.3 Contingent knovledge

Drawing one of the more important lessons from studying the transformation of our contemporary knovledge culture, it seems particularly important to recognize the basic "contingency" of our knovledge about social and educational reality (Hübner 1985, 105-106, 413). By this I mean two things. The first has

to do with the critical role of the observer's and analyst's social and cultural identity and its effect on the process and the outcome of knowledge generation. If we accept, as now seems clear that we must, the basic premise that reality is socially defined, then we also have to heed the kind of implication that this entails:

> "... the definitions (of reality) are always embodied, that is, concrete individuals and groups of individuals serve as definers of reality. To understand the state of the socially constructed universe at any given time, or its change over time, one must understand the social organization that permits the definers to do their defining. Put a little crudely, it is essential to keep pushing questions about the historically available conceptualizations of reality from the abstract "What?" to the sociologically concrete "Says who?" (Berger and Luckmann 1967, 116)

There simply is no acceptable excuse for disregarding, in our construction of the knowledge base for planning, the identity, the frames of reference, and the agenda of those who produce the knowledge, and our assessment of the adequacy of that knowledge base will be remiss if it does not include that added dimension of understanding. The observer's cultural frame of reference, organizational affiliation, gender, and social class do matter not only as a means of gauging "biases" in the observation, but also as a basis for understanding how choices of definitions, methods, and interpretations are made, and how these choices move a piece of analysis into a very specific direction.

The second aspect of the "contingency" of our knowledge base has to do with what, in its broadest sense, is the relationship between knowledge and power, and with the fact that, just as we can not abstract our notion of knowledge

from the identity of its producer, we cannot deal with knowledge in isolation from the relationships of power in which it is embedded. These relationships work both ways: In one sense, knowledge and the particular form it takes is the result of patterns of economic and political power (through such mechanisms as funding, accreditation, publication, censorship, etc.); in another sense, knowledge becomes a source of power (through such devices as expertise, policy advice, and justification): "Content of knowledge matters, but so does its legitimacy and its political impact" (Gran 1986, 287).

3.4 Critical discourses: Development and gender

Considering the centrality of education in the process of social change, educational policy and planning has no choice but to be systematically and critically exposed to some of the key debates in today's world of social knowledge. I mention two of those, both as illustrations and because I consider them particularly important: The debate on the notion and concept of development, and the growing preoccupation with the role of gender in the production and utilization of knowledge. There are references to both of those debates and to some of the key issues in them in earlier parts of this paper, and a small sample of the pertinent literature has been cited. Just as, in an earlier phase, educational planning saw itself very much as part of the (earlier) discourse on development that was centered on economic growth and the increase in technological rationality, it will now have to come to terms with a discourse on development which, as we have seen in the works of Kothari, Hettne, Gran, Bosse and others, is much more geared to considerations of autonomy, participation, ecology, and distributive justice (and which has, not coincidentally, moved much closer to the discourse on peace -- cf. Hettne 1985; Bosse

1978, 37ff.). Similarly, the reflection on a new knowledge base for educational policy and planning cannot afford to disregard the important contributions that are being made by feminist scholars to a much better understanding of the role of gender in the construction of social and educational reality -- including, incidentally, the discourse about development. This has only marginally to do with paying attention to the educational condition and prospects of women in a given society, but much more fundamentally with a better understanding of the many ways in which elements of patriarchy have pervaded our conception of such issues as performance, achievement, success, competition, and, indeed, knowledge. The five "research programs" that Sandra Harding describes are a good illustration of the kinds of questions that a gender-conscious effort at reconstructing the knowledge base of educational policy and planning might address (1986, 20-24).

3.5 The de-transnationalization of knowledge

It is no coincidence that, in the previous sections of this paper, the issue of the transnationalization of the production and dissemination of knowledge has claimed so much space. Its basic homogeneity is one of the most prominent characteristics of the existing knowledge system, and one that is most closely tied to the overall hegemonic quality of the modern world system. At the same time, the growing opposition to this homogeneity from within both the center and the periphery of the world system is one of the most momentous elements in the overall challenge to the existing order of knowledge production. Consequently, any attempt to move towards a new and more adequate knowledge base for educational policy and planning will have to take cognizance of this process of global "decentralization" in terms of both greater substan-

tive heterogeneity and diversity of paradigms, theories, and methodologies, and of a gradual loosening of the structural cohesion of the system in the direction of more regionalized and localized arrangements for knowledge production, dissemination, and collaboration.

It behooves educational policy and planning in particular to share actively in this process, both in order to compensate for its excessive earlier adherence to global models and ways of thought, and in order to help provide the core of new capacities for knowledge production in the periphery. For reasons discussed earlier, much education-related research will continue to be under the auspices of the powerful transnational system of knowledge production. To counteract this continuing tendency, a concerted effort of national and international institutions will be needed in order actively to support the development and dissemination of the kinds of "counterdiscourses" which were discussed earlier. An important part of this effort would be to prevent these counterdiscourses from becoming coopted by the existing transnational system, as Escobar claims happened to such notions as that of "basic needs" and "participation in development" (1984-85, 390-391). The roles that organizations like the UN University, SAREC, IDRC, and university-based programs like "Pädagogik Dritte Welt" in Frankfurt (Sölberg 1988) or SIDEC at Stanford have tried to play in this respect provide instructive lessons for the future of the effort. It would be natural for the IIEP to assume a responsibility of critical leadership in this regard; its work to strengthen the local capabilities for planning-related research in Third World countries has made some important contributions already, but a great deal remains to be done in terms of both substantive reflection and inspiration and of institutional assistance and encouragement.

3.6 Knowledge and morality

Reflecting a wider and growing apprehension, both Habermas and Nandy are, as we have seen, deeply troubled over what the latter calls "the new schizoid orientation to science (which) separated the spheres of morality and science, and left the latter free to define its own ethics in terms of the needs of science and the secular demands of the individual and the state" (Nandy 1978-79, 374-375; cf. Habermas 1985, 136-137; 1970). The exclusion of ethical and normative concerns from the realm of scientifically acceptable knowledge has had a debilitating effect on attempts to come to terms with the patently value-laden realities of social change and education. Overcoming this handicap is not merely a matter of renouncing the fiction of "value-free" knowledge about social reality along the lines of what was said earlier about the social construction of reality. It also requires an explicit commitment to incorporating the values -- both the observers' and the observed social actors'! -- in our designs for research and analysis. Studies of disparity that reflect both the authors' commitment to equitable social conditions and the actors' varying value positions on the matter should not be set aside under a pejorative "advocacy" label, any more than feminist studies on gender biases in curriculum that see themselves as contributing to overcoming those biases. Obviously, those values cannot be hidden, but need to be made transparent and explicit. As long as they are, however, the recognition of the key role that values play in both the construction of reality and in our attempts to understand it ranks as one of the most important and consequential elements of the way towards a new "knowledge culture" in educational policy and planning.

The mediation of knowledge and action that is planning faces its most formidable challenge as a result of the important transformations in the conceptions and structures of knowledge. An important part of this challenge is to recognize once again that knowledge is not necessarily limited to informing, supporting, and legitimating action, but that it also has the noble, time-honored, and vital function of subjecting action to a continuing process of critique and reflection.

NOTES

1. This paper is part of a larger project on "The politics of knowledge production: Challenges to the knowledge base of social policy", on which the author is working in 1988/89 as a Fellow at the Center for Advanced Study in the Behavioral Sciences. The Center's and the Spencer Foundation's financial support is gratefully acknowledged.

2. "What is truth on one side of the Pyrenees is error on the other" (Pensées, v. 60-294; 1963, 507).

3. Exceptions exist, as Bray's study of educational planning in Papua New Guinea shows (1984). It is interesting to note, however, Bray's point about tendencies toward "re-centralization" even after a period of relatively successful decentralization.

4. "Wherever you look, there is an often hasty and randomly sumultaneous reception of what had been heretofore suppressed: In Paris Leo Strauss and Hannah Arendt, Popper and Adorno; in Berkeley and in Frankfurt Lévi-Strauss, Foucault and Derrida -- and everywhere Feyerabend and Rorty, mixed with a dash of Quine and Putnam" (Habermas 1985, 133).

5. It should be pointed out, however, that the critical literature in the methdology of the social sciences does open up the possibility of different forms of "anticipatory inquiry". There, "prediction" is not based on a derivation from nomological or statistical laws, but on the reconstruction and understanding of a sequence of "justificatory steps" ("Begründungsschritte") which are linked by an ends-means rationale (Schwemmer 1975, 47).

6. The vigorous recent debates about the collection of census data and about machine-readable identity papers in some Western societies are a case in point.

7. Many of these challenges of the established transnational order are not simply anti-Western, but are more specifically a critique of the <u>modern</u> West; Nandy sees the work of Gandhi as a case in point for this important distinction (1981).

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